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U. S. Department of Agriculture
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No. 247.—Third Edition.

LIST OF
BULLETINS AND CIRCULARS

ISSUED BY THE

U. S. DEPARTMENT OF AGRICULTURE

AND

AVAILABLE FOR FREE DISTRIBUTION.

CORRECTED TO JUNE 1, 1899.

United States Department of Agriculture,

DIVISION OF PUBLICATIONS.

WASHINGTON, D. C., *June 1, 1899.*

NOTE.—Copies of the publications in the accompanying list will be sent free, so long as the editions permit, on application to the Secretary of Agriculture, Washington, D. C.

The Farmers' Bulletins and Circulars of Information issued by the U. S. Department of Agriculture are printed in large editions and are for free distribution, the object being to supply farmers and others interested in agriculture and kindred subjects with condensed and practical information. It is expected, however, that applicants will ask for only such publications as are likely to be of special interest to them, and not with a view to getting complete sets, which might embrace certain bulletins or circulars of no use to them but which would be of great value to some one else. If applicants will bear this fact in mind they will greatly aid the Department in its effort to make the widest and at the same time the most useful distribution of its publications.

BULLETINS AND CIRCULARS FOR FREE DISTRIBUTION.

FARMERS' BULLETINS.

No. 16.—Leguminous Plants for Green Manuring and for Feeding.
Pp. 24.

CONTENTS: Green manuring—How plants get nitrogen from the air—Some crops for green manuring—Composition of green leguminous crops—Green manuring compared with feeding the crop—Alfalfa and crimson clover for feeding—Cowpeas for feeding—Advantages of soiling—Value of leguminous crops for feeding.

No. 19.—Important Insecticides: Directions for Their Preparation and Use. Pp. 32.

CONTENTS: Relation of food habits to remedies—Insecticides for external biting insects (food poisons)—Insecticides for external sucking insects (contact poisons)—Dusting and spraying apparatus—Remedies for subterranean insects—Remedies for insects affecting grain and other stored products—Control of insects by cultural methods—Profit in remedial measures.

No. 20.—Washed Soils: How to Prevent and Reclaim Them. Pp. 22, figs. 6.

CONTENTS: Chemical relations of the soil to surface washing—Methods to prevent washing—Recovering gullied hillsides by reforestation—Recovery of washed soils—Preparation for planting forests—Grasses and similar vegetation to prevent washing of land.

No. 21.—Barnyard Manure. Pp. 32, figs. 7.

CONTENTS: Manure as a farm resource—Amount, value, and composition of manures produced by different animals—Influence of age and kind of animal, of quality and quantity of food, of the nature and proportion of litter—Management and use of manure—Lasting or cumulative effect of barnyard manure.

No. 22.—The Feeding of Farm Animals. Pp. 32.

CONTENTS: Principles of feeding—Composition of the animal body—Composition and digestibility of feeding stuffs—Feeding standards for different kinds of animals—Calculation of rations—Selection of feeding stuffs—Preparation of food for animals—Feeding for fat and for lean—Wheat as a food for animals—Table showing composition of feeding stuffs.

No. 23.—Foods: Nutritive Value and Cost. Pp. 32, charts 2.

CONTENTS: Nutriment in food and how it is used in the body—Chemical composition of food materials—The fuel value of food—Definition of food and food economy—Nutritive value of different food materials—Digestibility of food—Calculation of daily dietaries—Pecuniary economy of food—Food and health.

No. 24.—Hog Cholera and Swine Plague. Pp. 16.

CONTENTS: General characters—Symptoms—Appearance on post-mortem examination—The cause of these diseases—Diagnosis and prognosis—Formula for remedy for hog cholera and swine plague—Sanitary measures to prevent the introduction of hog cholera and swine plague—Prevention of disease by proper breeding and feeding.

No. 25.—Peanuts: Culture and Uses. Pp. 24, fig. 1.

CONTENTS: Description and history—Composition—Varieties—Climate and soil suitable for peanut culture—Manuring—Culture—Harvesting—Uses.

No. 26.—Sweet Potatoes: Culture and Uses. Pp. 30, figs. 4.

CONTENTS: Propagation—Character and preparation of soil—Transplanting—Cultivation—Manuring—Harvesting and storing—Varieties—Fungous diseases and insect enemies—Uses—Cost of production.

No. 27.—Flax for Seed and Fiber in the United States. Pp. 16.

CONTENTS: Can both seed and fiber be saved?—Soil selection and preparation—Fertilizing—Rotation—Kind and quantity of seed to sow—Weeds—Harvesting the fiber—Saving the seed—Retting the straw—The "American practice."

No. 28.—Weeds: And How to Kill Them. Pp. 32, figs. 11.

CONTENTS: General methods of eradicating weeds—List of weeds attracting special attention during 1894—Table of one hundred weeds.

No. 29.—Souring of Milk and Other Changes in Milk Products. Pp. 23.

CONTENTS: Composition of milk—Causes of fermentation—Sources, number and kinds of dairy bacteria—The souring of milk—Supposed effect of thunderstorms—Other forms of fermentation—Fermentation of milk by rennet.

No. 30.—Grape Diseases on the Pacific Coast. Pp. 15, figs. 3.

CONTENTS: California vine disease—Powdery mildew—Coulure.

No. 31.—Alfalfa, or Lucern. Pp. 32, figs. 3.

CONTENTS; Name—History—Description—Varieties—Habits of growth—Preparation of the soil—Sowing the seed—Alfalfa hay—Feeding value—Soiling vs. pasturing—Alfalfa for hogs—Alfalfa in the orchard—Chemical composition—Alfalfa as a soil renovator—Destroying alfalfa—Enemies of alfalfa.

No. 32.—Silos and Silage. Pp. 32, figs. 10.

CONTENTS: Historical—Construction and cost of silos—Selection and culture of silage crops—Filling the silo—Cost of silage—Composition and feeding value of silage—Feeding silage to farm stock.

No. 33.—Peach Growing for Market. Pp. 24, figs. 20.

CONTENTS: Where peaches can be grown—Planting within easy reach of large markets—Extent of peach lands in the United States—Planting and cultivation of the orchard—Pruning—Fertilizers—Fungous diseases and insect pests—Spraying, washes, etc.—Picking and marketing the fruit—Gluts in the market—Hindrances to profitable peach culture.

No. 34.—Meats: Composition and Cooking. Pp. 29, figs. 4.

CONTENTS: Animal and vegetable foods compared—Structure, composition, texture (toughness), flavor, and digestibility of meats—The cooking of meats—Cuts of meat—Fuel value of meats.

No. 35.—Potato Culture. Pp. 24, figs. 3.

CONTENTS: Soil and rotation—Manuring—Varieties—Time to cut seed potatoes—Quantity of seed potatoes per acre—Weight and number of eyes per set—Number of cuttings and stalks per hill—Cultivation—Mulching—Harvesting and storing—Second-crop potatoes.

No. 36.—Cotton Seed and Its Products. Pp. 16.

CONTENTS: Cotton seed—Method of manufacturing cotton-seed products—Cotton-seed oil, meal, and hulls—Cotton-seed-hull ash—Feeding cotton-seed products to farm stock—Effect on health of animals.

No. 37.—Kafir Corn: Characteristics, Culture, and Uses. Pp. 12, fig. 1.

CONTENTS: Characteristics, culture, and uses—Varieties—Soils and climate—Preparation of the soil—Methods of seeding—Cultivation and harvesting—Yield—Composition—Practical feeding tests.

No. 38.—Spraying for Fruit Diseases. Pp. 12, figs. 6.

CONTENTS: Fungicides, or remedies for plant diseases—Applying fungicides—Treatment of grape, apple, pear, quince, cherry, and plum diseases.

No. 39.—Onion Culture. Pp. 31, figs. 3.

CONTENTS: Selection and preparation of soil—Fertilizing—Seed and varieties—Growing onions from sets and from seed sown in the field—Transplanting—Cultivating and weeding—Irrigation—Harvesting—Storing—Production of seed—Two important enemies of the onion.

No. 40.—Farm Drainage. Pp. 24, figs. 6.

CONTENTS: Structure of soils, and its relation to their drainage—Natural and artificial drainage—Surface drainage and underdrainage—Tile drainage—Open drains—Construction of open ditches.

No. 41.—Fowls: Care and Feeding. Pp. 24, figs. 4.

CONTENTS: Site for building and yards—Construction of houses—Perches, nests, drinking fountains, dust boxes, etc.—Breeds and breeding—Feeding—Brooders and incubators—Diseases and lice—Dressing and shipping.

No. 42.—Facts about Milk. Pp. 29, figs. 8.

CONTENTS: The dairy industry—Composition and causes of variation in milk—Difficulties in obtaining pure milk—Changes in milk—Care of milk—Detecting impure milk—Town and city milk supply.

No. 43.—Sewage Disposal on the Farm and the Protection of Drinking Water. Pp. 20, figs. 8.

CONTENTS: Methods of disposal of different kinds of sewage—Protection of drinking water—Ways of contamination of water—Construction of wells.

No. 44.—Commercial Fertilizers: Composition and Use. Pp. 24.

CONTENTS: The need of commercial fertilizers—Fertilizer requirements of different soils and crops—Forms, sources, and composition of fertilizing materials—Agricultural vs. commercial value of fertilizers—Purchase of fertilizers and conditions when they may be properly used—Kind to use—How to apply.

No. 45.—Some Insects Injurious to Stored Grain. Pp. 24, figs. 17.

CONTENTS: Grain weevils—Grain moths—Flour and meal moths—Flour beetles—Meal worms—Grain beetles—The cadelle—Parasites and natural enemies—Methods of Control: Preventive measures; insecticides and other destructive agencies; the bisulphide of carbon treatment; summary of principal remedies.

No. 46.—Irrigation in Humid Climates. Pp. 27, figs. 4.

CONTENTS: The advantages of an abundant supply of soil moisture—The rainfall of the growing season in the United States is insufficient for maximum yield—Extent of irrigation in the humid parts of Europe—The rainfall of Europe and the Eastern United States compared—Fertilizing value of irrigation waters—Lands best suited to irrigation in humid climates—Methods of obtaining water for irrigation—The construction of reservoirs—Methods of applying irrigation water.

No. 47.—Insects Affecting the Cotton Plant. Pp. 32, figs. 18.

CONTENTS: The cotton worm, or cotton caterpillar—The cotton bollworm—The Mexican cotton-boll weevil—Other cotton insects.

No. 48.—The Manuring of Cotton. Pp. 16.

CONTENTS: The draft of the cotton plant upon the fertility of the soil—Experiments in the manuring of cotton.

No. 49.—Sheep Feeding. Pp. 24.

CONTENTS: Feeding breeding ewes—Feeding lambs intended for breeding purposes—Feeding rams—Feeding lambs for market.

No. 50.—Sorghum as a Forage Crop.—Pp. 20, fig. 1.

CONTENTS: General characteristics and origin—Extent of cultivation in the United States—Varieties—Conditions of growth—Methods of culture—Yield—Value for forage—Chemical composition and digestibility—Objections sometimes urged against sorghum as a forage crop.

No. 51.—Standard Varieties of Chickens. Pp. 48, figs. 44.

Enumerates, describes, and illustrates forty-four varieties of barnyard fowls, popularly called chickens, and recites their respective points of superiority and general utility.

No. 52.—The Sugar Beet. Pp. 48, figs. 24.

CONTENTS: Climatic conditions affecting the growth of the sugar beet—The theoretical beet-sugar belt of the United States—Growth of beets on irrigated lands—Varieties of beets—Soils—Fertilization—Precautions to be observed in applying stable manure—Preparation of the land for planting—Planting—Cultivation—Cost of growing beets—Harvesting—Siloing—Domestic production of beet seed—Comparative value of domestic and foreign-grown seed—Manufacture of sugar—Home manufacture of sugar—Waste products—Cost of Manufacture—Cost of factory—Cooperative factories—Statistical.

No. 53.—How to Grow Mushrooms. Pp. 20, figs. 14.

CONTENTS: Raising mushrooms from spores, or seed—Spawn—Where to grow mushrooms—Manure—Temperature—Gathering the mushrooms—Packing—Marketing—Mushroom diseases—Growing mushrooms in summer.

No. 54.—Some Common Birds in Their Relation to Agriculture. Pp. 40, figs. 14.

CONTENTS: The cuckoos—The woodpeckers—The kingbird—The phoebe—The bluejay—The crow—The bobolink, or ricebird—The red-winged blackbird—The meadow lark, or old-field lark—The Baltimore oriole—The crow blackbird—The sparrows—The rose-breasted grosbeak—The swallows—The cedarbird—The catbird—The brown thrasher—The house wren—The robin—The bluebird.

No. 55.—The Dairy Herd: Its Formation and Management. Pp. 24.

CONTENTS: Cattle for the dairy—Pure-bred dairy cattle and grades—The bull and his treatment—Accommodations for the herd—Health of the herd—Fall-fresh cows most profitable—Drying off cows and calving time—Abortion and milk fever—Care of calves and young stock—The pasture season and soiling—The stabling season—Feeding the herd.

No. 56.—Experiment Station Work—I. Pp. 31, figs. 10.

CONTENTS: Good vs. poor cows—Corn vs. wheat—Effects of rations richer and poorer in protein—Forage crops for pigs—Robertson silage mixture—Alfalfa—Effect of fertilizers on the proportion of grain to straw and stover—Comparative fertilizing value of the different phosphates—The harmful effects on soils of the continued use of muriate of potash—Recent progress in the study of irrigation—Potato scab—Barnyard manure—Explanation of terms.

No. 57.—Butter Making on the Farm. Pp. 16.

CONTENTS: Good milk—Creaming the milk—Deep cold-setting—The farm separator—Ripening cream—The churn—Churning—White specks in butter—Coloring butter—Salting and working butter—Make butter to suit the customer.

No. 58.—The Soy Bean as a Forage Crop. With an Appendix on Soy Beans as Food for Man. Pp. 24, figs. 5.

CONTENTS: General characteristics and origin—Varieties—Methods of culture—Harvesting—Yield—Chemical composition—Digestibility—Value and uses—Appendix: Soy beans as food for man.

No. 59.—Bee Keeping. Pp. 32, figs. 19.

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No. 60.—Methods of Curing Tobacco. Pp. 16.

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No. 61.—Asparagus Culture. Pp. 40, figs. 17.

CONTENTS: History—Botany and varieties—Production of plants from seed—Selection and preparation of soils—Planting and cultivation—Manuring beds—Cost of an asparagus bed—Harvesting and marketing—Canning—Drying—Fungous diseases—Insect enemies.

No. 62.—Marketing Farm Products. Pp. 28, figs. 7.

CONTENTS: The trade in farm produce—General rules—Packing—The commission merchant—Particular directions: Butter, eggs, poultry and game, meats, potatoes, small fruits, fruits, vegetables, and honey.

No. 63.—Care of Milk on the Farm. Pp. 40, figs. 9.

CONTENTS: Dairy bacteria—How milk becomes impure—How to keep milk pure—Fifty dairy rules.

No. 64.—Ducks and Geese: Standard Breeds and Management. Pp. 48, figs. 37.

CONTENTS: Standard breeds of ducks—Management of ducks—Standard breeds of geese—Management of geese.

No. 65.—Experiment Station Work—II. Pp. 32, figs. 7.

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No. 66.—Meadows and Pastures: Formation and Cultivation in the Middle Eastern States. Pp. 28, figs. 9.

CONTENTS: General prevalence and commercial value of grasses—Grasses as soil builders—Fertilizers for grass lands—Methods of preparing the soil—Sowing the seed—Varieties of grasses and clovers to plant—Some grass mixtures.

No. 67.—Forestry for Farmers. Pp. 48. figs. 15.

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No. 68.—The Black Rot of the Cabbage. Pp. 22, fig. 1.

CONTENTS: Nature and prevalence of the disease—Sources of infection—Suggestions for prevention—Prompt marketing—Storage—No danger from eating affected cabbages—Synopsis of rules for prevention.

No. 69.—Experiment Station Work—III. Pp. 32, figs. 2.

CONTENTS: Flax culture—Crimson clover—Forcing lettuce—Heating greenhouses—Corn smut—Millet disease of horses—Tuberculosis—Pasteurized cream—Kitchen and table wastes—Use of fertilizers.

No. 70.—The Principal Insect Enemies of the Grape. Pp. 23, figs. 12.

CONTENTS: The grapevine phylloxera—The grapevine fidia—The grape cane-borer—The grapevine flea beetle—The rose-chaffer—The grape leaf-folder—Hawk-moths and cutworms—The grape leaf-hopper—The grape berry-moth.

No. 71.—Some Essentials in Beef Production. Pp. 24, figs. 17.

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No. 72.—Cattle Ranges of the Southwest; A History of the Exhaustion of the Pasturage and Suggestions for Its Restoration. Pp. 32, figs. 9.

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No. 77.—The Liming of Soils. Pp. 19.

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No. 80.—The Peach Twig-Borer: An Important Enemy of Stone Fruits. Pp. 19, figs. 5.

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No. 82.—The Culture of Tobacco. Pp. 24.

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No. 85.—Fish as Food. Pp. 30.

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No. 86.—Thirty Poisonous Plants of the United States. Pp. 32, figs. 24.

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No. 88.—Alkali Lands. Pp. 23, fig. 1.

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No. 89.—Cowpeas. Pp. 16, fig. 1.

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No. 90.—Manufacture of Sorghum Sirup. Pp. 32.

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No. 93.—Sugar as Food. Pp. 28.

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No. 94.—The Vegetable Garden. Pp. 24.

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No. 95.—Good Roads for Farmers. Pp. 47, figs. 49.

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No. 96.—Sheep Raising for Mutton. Pp. 48, figs. 18.

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[See also Division of Botany.]

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- Circular No. 4.—The Army Worm. Pp. 5, figs. 3.
- Circular No. 5.—The Carpet Beetle, or "Buffalo" Moth. Pp. 4, fig. 1.
- Circular No. 7.—The Pear Tree Psylla. Pp. 8, figs. 6.
- Circular No. 8.—The Imported Elm Leaf Beetle. Pp. 4, fig. 1.
- Circular No. 9.—Canker-Worms. Pp. 4, figs. 4.
- Circular No. 10.—The Harlequin Cabbage Bug, or Calico Back. Pp. 2, fig. 1.
- Circular No. 11.—The Rose Chafer. Pp. 4, fig. 1.
- Circular No. 12.—The Hessian Fly. Pp. 4.
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- Circular No. 25.—The Ox Warble. Pp. 10, figs. 10.
- Circular No. 26.—The Pear Slug. Pp. 7, figs. 4.
- Circular No. 27.—The Mexican Cotton-boll Weevil in 1897. Pp. 7.
- Circular No. 28.—The Box-elder Plant-bug. Pp. 3, fig. 1.
- Circular No. 29.—The Fruit-tree Bark-beetle. Pp. 8, figs. 4.
- Circular No. 31.—The Striped Cucumber Beetle. Pp. 7, figs. 2.
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- Circular No. 33.—Remedial Work Against the Mexican Cotton-boll Weevil. Pp. 6.
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- Circular No. 38.—The Squash-vine Borer. Pp. 6, figs. 2.
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OFFICE OF EXPERIMENT STATIONS.

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- Circular No. 27.—Statistics of Agricultural Colleges and Experiment Stations. Pp. 18.
- Circular No. 28.—Broom Corn. Pp. 4.
- Circular No. 32.—Methods of Teaching Agriculture [first report]. Pp. 20.
- Circular No. 33.—Civil Service in the Department of Agriculture. Pp. 10.
- Circular No. 37.—Methods of Teaching Agriculture [second report]. Pp. 4.
- Circular No. 38.—Some Books on Agriculture and Sciences Related to Agriculture, Published 1896-1898. Pp. 45.
- Circular No. 39.—Methods of Teaching Agriculture [third report]. Pp. 7.

Circular No. 40.—Land-Grant and Other Colleges and the National Defense. Pp. 15.

Agricultural Education in Scandinavia and Finland. Pp. 15, figs. 4. (Reprinted from Experiment Station Record.)

Agricultural Associations in Belgium. Pp. 21. (Reprinted from Experiment Station Record.)

SECTION OF FOREIGN MARKETS.

Circular No. 2.—American Dried Apples in the German Empire. Pp. 3.

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Circular No. 8.—The Manchester District of England as a Market for American Products. Pp. 8. fig. 1.

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Circular No. 13.—Distribution of the Principal Agricultural Exports of the United States During the Five Years Ended June 30, 1896. Pp. 24.

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Circular No. 19.—Austria-Hungary as a Factor in the World's Grain Trade; Recent Use of American Wheat in That Country. Pp. 23.

Circular No. 20.—Agricultural Imports and Exports, 1893-1897. Pp. 15.

Circular No. 21.—Agricultural Imports and Exports, 1894-98. Pp. 16.

DIVISION OF FORESTRY.

Circular No. 10.—Suggestions to the Lumbermen of the United States in Behalf of More Rational Forest Management. Pp. 8.

Circular No. 12.—Southern Pine: Mechanical and Physical Properties. Pp. 12, figs. 4. [Quarto.]

Circular No. 15.—Summary of Mechanical Tests on Thirty-two Species of American Woods. Pp. 12.

Circular No. 19.—Progress in Timber Physics. Bald Cypress. Pp. 24.

Circular No. 20.—Increasing the Durability of Timber. Pp. 5.

Circular No. 21.—Practical Assistance to Farmers, Lumbermen, and Others in Handling Forest Lands. Pp. 5.

DIVISION OF GARDENS AND GROUNDS.

Circular No. 1.—An Experiment in Tea Culture. Pp. 10.

DIVISION OF POMOLOGY.

Circular No. 3.—Notes on Peach Culture. Pp. 10, figs. 4.

DIVISION OF PUBLICATIONS.

Circular No. 179.—List of Publications of the Department of Agriculture for Sale by the Superintendent of Documents. Pp. 28. (Revised and corrected to February 1, 1899.)

Circular No. 218.—The Publication Work of the Department of Agriculture as Affected by the Law of January 12, 1895. Pp. 4.

Circular No. 247.—List of Farmers' Bulletins and Circulars of Information Available for distribution. Pp. 20. (Revised and corrected to June 1, 1899.)

Monthly List of Publications.

This list is issued on the last day of each month and contains the titles of all publications issued by the Department of Agriculture during the month. The Monthly List is mailed regularly to all persons who request to have their names enrolled for that purpose.

OFFICE OF ROAD INQUIRY.

Circular No. 14.—Addresses on Road Improvement. Pp. 15.

Circular No. 15.—An Act to Provide for the Construction of Roads by Local Assessment, County and State Aid. Pp. 3.

Circular No. 17.—Origin and Work of the Darlington Road League. Pp. 6.

Circular No. 18.—Report of Committee on Legislation, adopted by the State Good Roads Convention, held in Richmond, Va., October 10 and 11, 1895. Pp. 6.

Circular No. 19.—Traffic on the Country Roads. Opinions of Representative Men. Pp. 4.

Circular No. 20.—Comments on Systems of Maintaining Country Roads. Pp. 7.

Circular No. 21.—Methods of Constructing Macadamized Roads. Pp. 12.

Extract from a report prepared by the Chief Engineering Inspector of the Local Government Board of Great Britain.

Circular No. 22.—Appeal for State Organization in Tennessee Pp. 3.

Circular No. 23.—Money Value of Good Roads to Farmers. Pp. 4.

Circular No. 24.—Highway Maintenance and Repairs. Pp. 16.

Highway taxation; comparative results of labor and money systems; contract system of maintaining roads.

Circular No. 25.—Brick Paving for Country Roads. Pp. 7, figs. 6.

Circular No. 27.—Cost of Hauling Farm Products in Europe. Pp. 12.

Circular No. 28.—Addresses on Road Improvement in Maine, North Carolina, New York, and Illinois. Pp. 26.

Circular No. 29.—The Forces which Operate to Destroy Roads, with notes on road stones and problems therewith connected. Pp. 14, pls. 4.

Circular No. 30.—Repairs of Macadam Roads. Pp. 14.

Circular No. 31.—Must the Farmer Pay for Good Roads? Pp. 40, figs. 48.

Circular No. 32.—State Aid to Road Building in Minnesota. Pp. 12, figs. 5.

Circular No. 33.—Road Improvement in Governors' Messages. Pp. 14.

OFFICE OF THE SECRETARY.

Circular No. 2.—Protest Against Proposed Legislation Restricting the Experiments in the Department of Agriculture. Pp. 8.

Circular No. 3.—Progress of Southern Agriculture. Pp. 12.

Circular No. 4.—Experiments on Living Animals. Pp. 3.

Circular No. 5.—Civil Service in the Department of Agriculture. Pp. 4.

Circular No. 6.—Number, Status, and Compensation of Employees in the Department of Agriculture. Pp. 4.

Circular No. 7.—Possible Influence of Importation of Hawaiian Sugar on Beet-Sugar Production in the United States. Pp. 4.

DIVISION OF STATISTICS.

Circular No. 1.—Acreage, Production, and Value of Principal Farm Crops in the United States, 1866 to 1895, with Other Data as to Cotton and Wool. Pp. 8.

Circular No. 2.—The Wheat Crop of the World for 1895. Pp. 2.

Circular No. 3.—The Farmers' Interest in Finance. Pp. 15.

Circular No. 4.—The Cotton Crop of 1895. Pp. 15.

Circular No. 5.—Local Taxation as Affecting Farms. Pp. 16.

Circular No. 6.—Cereal Crops of 1896. Pp. 12.

Circular No. 8.—The Cotton Crop of 1896–97. Pp. 4.

Circular No. 9.—The Cotton Crop of 1897–98. Pp. 16.

Monthly Crop Circulars.

Issued by the Division of Statistics about the 10th of each month (only one report being issued for the two months of January and February), and containing reports on crop conditions, statistics of crops and farm animals, and notes on crops in foreign countries.

DIVISION OF VEGETABLE PHYSIOLOGY AND PATHOLOGY.

Circular No. 15.—Treatment of Sooty Mold of the Orange. Pp. 4.

Circular No. 17.—New Spraying Devices. Pp. 4, figs. 3.

MISCELLANEOUS CIRCULARS.

Circular No. 1.—The Castor Oil Plant. Pp. 4.

Circular No. 2.—The Mississippi River Flood. Pp. 6.

Circular No. 3.—The Mississippi River Flood [second report]. Pp. 4.

Opinion of Scientific Men with Regard to the Proposition for a Director-in-Chief of Scientific Bureaus in the Department of Agriculture. Pp. 12.

EXTRACTS.

Reprinted from the Yearbook for 1894.

2. Education and Research in Agriculture in the United States. Pp. 35.
6. Water as a Factor in the Growth of Plants. Pp. 12, figs. 4.
7. Mineral Phosphates and Fertilizers. Pp. 16, figs. 2.
10. Hawks and Owls from the Standpoint of the Farmer. Pp. 17, pls. 3, figs. 4.
11. The Crow Blackbirds and Their Food. Pp. 15, fig. 1.
15. Some Practical Suggestions for the Suppression and Prevention of Bovine Tuberculosis. Pp. 13.
18. Pure Seed Investigation. Pp. 20, figs. 9.
20. Grasses as Sand and Soil Binders. Pp. 16, figs. 11.
21. Sketch of the Relationship between American and Eastern Asian Fruits. Pp. 6.
24. Best Roads for Farmers and Farming Districts. Pp. 4, figs. 7.
25. State Highways in Massachusetts. Pp. 8.
26. Improvement of Public Roads in North Carolina. Pp. 8, pls. 2.
27. Tobacco Soils of Connecticut and Pennsylvania. Pp. 13, figs. 7.

- 28. Truck Lands of the Atlantic Seaboard. Pp. 15, figs. 3.
- 29. Conditions in Soils in the Arid Region. Pp. 15, figs. 3.
- 30. Weather Conditions of the Crop of 1894. Pp. 5, figs. 2.
- 31. Three Articles on Roads. Pp. 22, pls. 2, figs. 7.
 - 1. Best Roads for Farmers and Farming Districts.
 - 2. State Highways in Massachusetts.
 - 3. Improvement of Public Roads in North Carolina.

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- 34. Testing Seeds at Home. Pp. 9, figs. 3.
- 36. Two Articles on Irrigation and Greenhouses. Pp. 24, figs. 8.
 - 1. Irrigation for the Garden and Greenhouse.
 - 2. The Health of Plants in Greenhouses.
- 38. Hemp Culture. Pp. 8.
- 41. Some Additions to Our Vegetable Dietary. Pp. 10, figs. 9.
- 42. Work of the Department of Agriculture as Illustrated at the Atlanta Exposition. Pp. 20, fig. 1, pls. 3.
- 46. Climate, Soil, and Irrigation in California. Pp. 12, pls. 2, figs. 5.
- 47. Small Fruit Culture for Market. Pp. 12, pl. 1.
- 48. Frosts and Freezes: Effects on Cultivated Plants. Pp. 16, figs. 8.
- 49. Relations of Forests to Farms. Pp. 8, figs. 3.
- 50. Pear Blight: Its Cause and Prevention. Pp. 6.
- 52. Two Hundred Weeds: How to Know and Kill them. Pp. 18.
- 55 (Part 3). Pineapple Industry in the United States. Pp. 14, pl. 1, figs. 6.
- 57. Two Articles on Growth and Health of Plants. Pp. 18, figs. 5.
 - 1. The Principles of Pruning and Care of Wounds in Woody Plants.
 - 2. The Cause and Prevention of Pear Blight.

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- 60. Timothy in the Prairie Region. Pp. 8, figs. 2.
- 62. The Country Slaughterhouse as a Factor in the Spread of Disease. Pp. 12.
- 63. Some Modern Disinfectants. Pp. 8, fig. 1.
- 65. Extermination of Noxious Animals by Bounties. Pp. 14.
- 69. The Superior Value of Large and Heavy Seed. Pp. 18, figs. 10.
- 70. Migration of Weeds. Pp. 24, figs. 15.

- 71. Potash and Its Function in Agriculture. Pp. 20.
- 73. The Use of Steam Apparatus for Spraying. Pp. 20, pl. 2, figs. 15.
- 74. Insect Control in California. Pp. 20, figs 2, pl. 1.
- 75. Asparagus Beetles. Pp. 12, figs. 6.
- 76. The Feeding Value of Corn Stover. Pp. 8.
- 77. Improvement of Our Native Fruits. Pp. 8.
- 78. Agricultural Research and Education in Belgium. Pp. 10.
- 81. Irrigation on the Great Plains. Pp. 30, figs. 9, pls. 2.
- 82. Diseases of Shade and Ornamental Trees. Pp. 18, figs. 5.
- 87. Pruning and Training Grapevines. Pp. 42, figs. 21.
- 88. An Ideal Department of Agriculture and Industries. Pp. 10.

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- 89. Grass and Forage Experiment Station at Garden City, Kans.
By Dr. J. A. Sewall. Cooperative Branch Stations in the
South. By S. M. Tracy. Pp. 12.

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- 90. Division of Agrostology. Pp. 16.
- 91. Lawns and Lawn Making. Pp. 18, pls. 7.
- 93. Bureau of Animal Industry. Pp. 23.
- 94. Utilization of By-Products of the Dairy. Pp. 20.
- 96. Birds That Injure Grain. Pp. 10.
- 102. Office of Experiment Stations. Pp. 9.
- 103. Every Farm an Experiment Station. Pp. 14.
- 104. Popular Education for the Farmer in the United States. Pp. 12.
- 105. The Needs and Requirements of a Control of Feeding Stuffs.
Pp. 8.
- 106. The Agricultural Outlook of the Coast Region of Alaska. Pp.
24, pls. 4.
- 107. Foods for Man. Pp. 7.
- 108. Office of Fiber Investigations. Pp. 13.
- 109. Present Status of Flax Culture in the United States. Pp. 16.
- 110. Section of Foreign Markets. Pp. 9.
- 111. Division of Forestry. Pp. 18.
- 112. Trees of the United States Important in Forestry. Pp. 26.

- 114. The Library. Pp. 5.
- 118. Office of Road Inquiry. Object Lesson Roads. Pp. 18, pls. 2, fig. 1.
- 120. Some Interesting Soil Problems. Pp. 12.
- 122. Agricultural Production and Prices. Pp. 14.
- 123. Division of Vegetable Physiology and Pathology. Pp. 13.
- 124. Hybrids and Their Utilization in Plant Breeding. Pp. 38, figs. 12, pls. 4.
- 126. Review of Weather and Crop Conditions Season of 1897. Pp. 20.

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- 127. Sand-Binding Grasses. Pp. 18, pls. 3, figs. 11.
- 128. Millets. Pp. 26, pls. 2, figs. 6.
- 129. Forage Plants for Cultivation on Alkali Soils. Pp. 18, figs. 4.
- 130. Cattle Dipping: Experimental and Practical. Pp. 22, figs. 2.
- 131. The Preparation and Use of Tuberculin. Pp. 12, pl. 1.
- 132. The Danger of Introducing Noxious Animals and Birds. Pp. 26, pl. 1, figs. 6.
- 133. Birds as Weed Destroyers. Pp. 14, pl. 1, figs. 7.
- 134. Weeds in Cities and Towns. Pp. 10, figs. 5.
- 135. Can Perfumery Farming Succeed in the United States? Pp. 24, figs. 7.
- 136. Grass Seed and Its Impurities. Pp. 22, pls. 5, figs. 2.
- 137. Utilization of Residues from Beet-Sugar Manufacture in Cattle Feeding. Pp. 10.
- 138. The Principal Insects Affecting the Tobacco Plant. Pp. 32, figs. 25.
- 139. Insects Injurious to Beans and Peas. Pp. 30, figs. 17.
- 140. Some Types of Agricultural Colleges. Pp. 20, pls. 7.
- 141. Some Results of Dietary Studies in the United States. Pp. 16.
- 142. Agricultural Experiments in Alaska. Pp. 12, pls. 3.
- 143. Notes on Some Forest Problems. Pp. 14, pls. 4.
- 144. Work of the Division of Forestry for the Farmer. Pp. 14, pls. 3, figs. 2.
- 145. Pruning of Trees and Other Plants. Pp. 18.
- 146. Utilizing Surplus Fruits. Pp. 10.
- 147. The Present Condition of Grape Culture in California. Pp. 14.



148. Notes on Some English Farms and Farmers. Pp. 10.
149. Steel-Track Wagon Roads. Pp. 8, pls. 3, fig. 1.
150. Construction of Good Country Roads. Pp. 10, pls. 2.
151. Agriculture in Puerto Rico. Pp. 12, pl. 1.
154. The Public Domain of the United States. Pp. 32.
155. Keeping Goats for Profit. Pp. 20, pls. 2.
156. Agricultural Statistics. Pp. 49.
157. Pollination of Pomaceous Fruits. Pp. 16, figs. 13.
159. Improvement of Plants by Selection. Pp. 24, pls. 2, figs. 3.
160. The Use of Kites in the Exploration of the Upper Air. Pp. 14,
pl. 1, figs. 9.
161. Cyclones, Hurricanes, and Tornadoes. Pp. 12.
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163. A Directory for Farmers. Pp. 19.